

Sheet 1 of 5

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| Substitute Form PTO-1449 (Modified) | U.S. Department of Commerce Patent and Trademark Office | Attorney's Docket No. 21865-002001/6502 | Application No. 10/718,986 |
| | | Applicant | |
| | | Filing Date November 21, 2003 | Group Art Unit 1652 |

List of Patents and Publications for Applicant's Information Disclosure Statement

(37 CFR §1.98(b))

U.S. Patent Documents

| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee | Class | Subclass | Filing Date If Appropriate |
|------------------|-----------|-----------------|------------------|---------------|-------|----------|----------------------------|
| | AA | 2002/0025320 | 02/28/02 | Boyaka et al. | 424 | 184.1 | 06/25/01 |
| | AB | 2005/0112751 | 05/26/05 | Fang et al. | 435 | 206 | 09/10/04 |
| | AC | 5,532,215 | 07/02/96 | Lezdey et al. | 514 | 8 | 10/03/94 |
| | AD | 6,251,392 | 06/26/01 | Hein et al. | 424 | 134.1 | 10/20/97 |
| | AE | 6,440,419 | 08/27/02 | Hein et al. | 424 | 178.1 | 10/20/98 |

Foreign Patent Documents or Published Foreign Patent Applications

| Examiner Initial | Desig. ID | Document Number | Publication Date | Country or Patent Office | Class | Subclass | Translation | |
|------------------|-----------|-----------------|------------------|--------------------------|-------|----------|-------------|----|
| | | | | | | | Yes | No |
| | AF | WO 04/047735 | 06/10/04 | WIPO | | | | |
| | AG | WO 06/031291 | 03/23/06 | WIPO | | | | |

Other Documents (include Author, Title, Date, and Place of Publication)

| Examiner Initial | Desig. ID | Document |
|------------------|-----------|--|
| | AH | Ahmed K., et al., "Attachment of moraxella catarrhalis to pharyngeal epithelial cells is mediated by a glycosphingolipid receptor," FEMS Microbiology Letters, 135:305-309, (1996). |
| | AI | Alvarez, P. et al., "Improving protein pharmacokinetics by genetic fusion to simple amino acid sequences," Journal of Biological Chemistry, 279:3375-3381, (2004). |
| | AJ | Andersson, B., et al., "Inhibition of attachment of streptococcus pneumoniae and haemophilus influenzae by human milk and receptor oligosaccharides," Journal of Infectious Diseases, 153:232-237, (1986). |
| | AK | Andrews, J., et al., "Community-acquired pneumonia," Current Opinion in Pulmonary Medicine, 9:175-180, (2003). |
| | AL | Angata, T., et al., "1-type lectins," Biochimica et Biophysica Acta, 1572:294-316, (2002). |
| | AM | Baker, N., et al., "Glycosphingolipid receptors for pseudomonas aeruginosa," Infection and Immunity, 58:2361-2366, (1990). |
| | AN | Ball, P., "Epidemiology and treatment of chronic bronchitis and its exacerbations," Chest, 108: 43S-52S, (1995). |
| | AO | Bals, R., et al., "Transduction of well-differentiated airway epithelium by recombinant adeno-associated virus is limited by vector entry," Journal of Virology, 73:6085-6088, (1999). |
| | AP | Barthelson, R., et al., "Adherence of streptococcus pneumoniae to respiratory epithelial cells is inhibited by sialylated oligosaccharides," Infection and Immunity, 66:1439-1444, (1998). |
| | AQ | Bartlett, J., et al. "Community-acquired pneumonia in adults: guidelines for management," The Infectious Diseases Society of America clinical infectious diseases," 26:811-838, (1998). |
| | AR | Belshe, R. et al., "Genetic basis of resistance to rimantadine emerging during treatment of influenza virus infection," Journal of Virology, 62:1508-1512, (1988). |

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|------------------|-----------|---|
| | AS | Belser et al., "DAS181, A novel sialidase fusion protein, protects mice from lethal avian influenza H5N1 virus infection" JID 196:1493-1499 (2007). |
| | AT | Beswick, E., et al., "Comparative studies of glycosaminoglycan involvement in Chlamydia pneumoniae and C trachomatis invasion of host cells," Journal of Infectious Diseases, 187:1291-1300, (2003). |
| | AU | Cocchiara, R., et al., "Inhibitory effect of neuraminidase on SP-induced histamine release and TNF-alpha mRNA in rat mast cells: evidence of a receptor-independent mechanism," Journal of Neuroimmunology, 75, 9-18, (1997). |
| | AV | Crennell, S.J., et al., Garman, "Crystal structure of Vibrio Cholerae neuraminidase reveals dual lectin-like domains in addition to the catalytic domain," Structure, 2:535-544, (1994). |
| | AW | Crocker, P. and A. Varki, "Siglecs, sialic acids and innate immunity," Trends in Immunology, 22, 337-342, (2001). |
| | AX | Cundell, D. and E. Tuomanen, "Receptor specificity of adherence of streptococcus pneumoniae to human type-II pneumocytes and vascular endothelial cells in vitro," Microbial Pathogenesis, 17:361-374, (1994). |
| | AY | Cundell D R, Weiser J N, Shen J, Young A, & Tuomanen E I (1995) Relationship between colonial morphology and adherence of Streptococcus pneumoniae Infection and Immunity 63, 757-761, (1995). |
| | AZ | Faden, H., "The microbiologic and immunologic basis for recurrent otitis media in children," European Journal of Pediatrics, 160:407-413, (2001). |
| | BA | Fakihi, N., et al., "Specific binding of haemophilus influenzae to minor gangliosides of human respiratory epithelial cells," Infection and Immunity, 65:1695-1700, (1997). |
| | BB | File, T., "The epidemiology of respiratory tract infections," Seminars in Respiratory Infections, 15:184-194, (2000). |
| | BC | Flotte, T. and B. Carter, "Adeno-associated virus vectors for gene therapy of cystic fibrosis," Methods in Enzymology, 292, 717-732, (1998). |
| | BD | Flotte, T., et al., "Stable in vivo expression of the cystic fibrosis transmembrane conductance regulator with an adeno-associated virus vector," Proceedings of the National Academy of Sciences of the United States of America, 90, 10613-10617, (1993). |
| | BE | Garcia-Rodriguez, J., et al., "Dynamics of nasopharyngeal colonization by potential respiratory pathogens," Journal of Antimicrobial Chemotherapy, 50[Suppl S2]:59-73, (2002). |
| | BF | Gaskell et al., "The three domains of a bacterial sialidase: a beta-propeller, an immunoglobulin module and a galactose-binding jelly-roll," Structure 3:1197-1205, (1995). |
| | BG | Genbank Accession Number A49227 (2 pgs.) (accessed on 09.19.2007). |
| | BH | GenBank Accession Number AAH09799 (3 pgs.) (accessed on 09.19.2007). |
| | BI | Genbank CoreNucleotide Accession Number D01045 (4 pgs.) (accessed on 02.01.2007). |
| | BJ | Genbank Accession Number L06898 (4 pgs.) (accessed on 09.19.2007). |
| | BK | Genbank CoreNucleotide Accession Number NM080741(4 pgs.) (accessed on 04.20.2007). |
| | BL | Genbank CoreNucleotide Accession Number X62276 (4 pgs.) (accessed on 02.01.2007). |

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| | BM | Genbank CoreNucleotide Accession Number X87369 (6 pgs.) (accessed on 02.01.2007). |
| | BN | Genbank CoreNucleotide Accession Number Y16535 (4 pgs.) (accessed on 02.01.2007). |
| | BO | Halbert, C., et al., "Efficient mouse airway transduction following recombination between AAV vectors carrying parts of a larger gene," Nature Biotechnology, 20:697-701, (2002). |
| | BP | Halbert, C., et al., "Successful readministration of adeno-associated virus vectors to the mouse lung requires transient immunosuppression during the initial exposure," Journal of Virology, 72:9795-9805, (1998). |
| | BQ | Hazlett, L., et al., "In vivo identification of sialic acid as the ocular receptor for Pseudomonas aeruginosa," Infection and Immunity, 51:687-689, (1986). |
| | BR | Hirel, P., et al., Extent of N-terminal methionine excision from Escherichia coli proteins is governed by the side-chain length of the penultimate amino acid," Proceedings of the National Academy of Sciences of the United States of America, 86:8247-8251 |
| | BS | Hirno, S., et al., "Adhesion of Helicobacter pylori strains to alpha-2,3-linked sialic acids," Glycoconjugate Journal, 13:1005-1011, (1996). |
| | BT | Jarreau P H, Harf A, Leveau M, Lambre C R, Lorino H, & Macquin-Mavier I (1992) Effects of neuraminidase on airway reactivity in the guinea pig American Review of Respiratory Disease, 145:906-910, (1992). |
| | BU | Kai, H., et al., "The influence of neuraminidase treatment on tracheal smooth muscle contraction," European Journal of Pharmacology, 220:181-185, (1992). |
| | BV | Karlsson, K., "Meaning and therapeutic potential of microbial recognition of host glycoconjugates," Molecular Microbiology, 29:1-11, (1998). |
| | BW | Karp, P., et al., "An in vitro model of differentiated human airway epithelia methods for establishing primary cultures," Methods in Molecular Biology, 188:115-137, (2002). |
| | BX | Kawakami, K., "Attachment of nontypable Haemophilus influenzae to human pharyngeal epithelial cells mediated by a ganglioside receptor," Microbiology and Immunology, 42, 697-702, (1998). |
| | BY | Kido H, et al., "Cellular proteinases and viral infection: influenza virus, sendai virus and HIV-1," p.205-217. In B. Dunn (ed.), Proteases of infectious agents. Academic Press, New York, N.Y. , (1999). |
| | BZ | Le Calvez, H., et al., "Biochemical prevention and treatment of viral infections - a new paradigm in medicine for infectious diseases," Virology Journal, 1:12, (2004). |
| | CA | Lyczak, J., "Lung infections associated with cystic fibrosis," Clinical Microbiology Reviews, 15:194-222, (2002). |
| | CB | Macfarlane, J., "An overview of community acquired pneumonia with lessons learned from the British Thoracic Society Study," Seminars in Respiratory Infections, 9:153-165, (1994). |
| | CC | Malakhov, M.P., et al., "Sialidase fusion protein as a novel broad-spectrum inhibitor of influenza virus infection," Antimicrobial Agents and Chemotherapy, 50(4):1470-1479, (2006). |
| | CD | Martinez, I. and J. Melero, "Binding of human respiratory syncytial virus to cells: implication of sulfated cell surface proteoglycans," Journal of General Virology, 81:2715-2722, (2000). |
| | CE | Matsushima, T., et al., "Etiology and management of community-acquired pneumonia in Asia," Current Opinion in Infectious Diseases, 15:157-162, (2002). |

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| | CF | Mbaki, N., et al., "Correlation between Branhamella catarrhalis adherence to oropharyngeal cells and seasonal incidence of lower respiratory tract infections," Tohoku Journal of Experimental Medicine, 153:111-121, (1987). | | |
| | CG | Mendel, D., et al., "Oral administration of a prodrug of the influenza virus neuraminidase inhibitor GS 4071 protects mice and ferrets against influenza infection," Antimicrobial Agents and Chemotherapy, 42:640-646, (1998). | | |
| | CH | Miller-Podraza, H., et al., "Recognition of glycoconjugates by Helicobacter pylori Comparison of two sialic acid-dependent specificities based on haemagglutination and binding to human erythrocyte glycoconjugates," Glycoconjugate Journal, 4:467-471, (1997). | | |
| | CI | NCBI Core Nucleotide D01045, (accessed on 02.01.07). | | |
| | CJ | NCBI Core Nucleotide NM080741, (accessed on 4.19.07). | | |
| | CK | NCBI Core Nucleotide X62276, (accessed on 02.01.07). | | |
| | CL | NCBI Core Nucleotide X87369, (accessed on 02.01.07). | | |
| | CM | Park, P., et al., "Exploitation of syndecan-1 shedding by Pseudomonas aeruginosa enhances virulence," Nature, 411:98-102, (2001). | | |
| | CN | Potier, M., "Fluorometric assay of neuraminidase with a sodium (4-methylumbelliferyl-alpha-D-N-acetylneuraminate) substrate," Analytical Biochemistry, 94:287-296, (1979). | | |
| | CO | Reuman, P., et al., "Assessment of signs of influenza illness in the ferret model," Journal of Virological Methods, 24:27-34, (1989). | | |
| | CP | Root et al., "Targeting therapeutics to an exposed and conserved binding element of the HIV-1 fusion protein" Proc. Natl. Acad. Sci. 100(9):5016-5021 (2003). | | |
| | CQ | Schultze, B., et al., "The S protein of bovine coronavirus is a hemagglutinin recognizing 9-O-acetylated sialic acid as a receptor determinant," Journal of Virology, 65:6232-6237, (1991). | | |
| | CR | Simon, P., et al., "Inhibition of Helicobacter pylori binding to gastrointestinal epithelial cells by sialic acid-containing oligosaccharides," Infection and Immunity, 65:750-757, (1997). | | |
| | CS | Smith, H. and Sweet, C., "Lessons for human influenza from pathogenicity studies with ferrets," Reviews of Infectious Diseases, 10:56-75, (1988). | | |
| | CT | Solzbacher, D., et al., "Mucin in middle ear effusions inhibits attachment of Haemophilus influenzae to mucosal epithelial cells," European Archives of Oto-Rhino-Laryngology, 260:141-147, (2003). | | |
| | CU | Soriano, F. and V. Rodriguez-Cerrato, "Pharmacodynamic and kinetic basis for the selection of pneumococcal resistance in the upper respiratory tract," Journal of Antimicrobial Chemotherapy, 50 Suppl S2:51-58, (2002). | | |
| | CV | Stenton, G., et al., "Proteinase-activated receptor (PAR)-1 and -2 agonists induce mediator release from mast cells by pathways distinct from PAR-1 and PAR-2," Journal of Pharmacology and Experimental Therapeutics, 302, 466-474, (2002). | | |
| | CW | Sutter, V., "Anaerobes as normal oral flora," Reviews of Infectious Diseases, 6 Suppl 1, S62-S66, (1984). | | |
| | CX | Tashiro, M., "Synergistic role of staphylococcal proteases in the induction of influenza virus pathogenicity," Virology, 157:421-430, (1987). | | |
| | CY | Teufel, M., et al., "Properties of sialidase isolated from Actinomyces viscosus DSM43798," Biological Chemistry Hoppe Seyler, 370:435-443, (1989). | | |
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| | CZ | Thomas, R. and T. Brooks, "Oligosaccharide receptor mimics inhibit Legionella pneumophila attachment to human respiratory epithelial cells," Microbial Pathogenesis, 36:83-92, (2004). | | | |
| | DA | van Alphen, L., et al., "Blocking of fimbria-mediated adherence of Haemophilus influenzae by sialyl gangliosides," Infection and Immunity, 59:4473-4477, (1991). | | | |
| | DB | Varshavsky, A., "The N-end rule: functions, mysteries, uses," Proceedings of the National Academy of Sciences of the United States of America, 93:12142-12149, (1996). | | | |
| | DC | Wagner, J., "Efficient and persistent gene transfer of AAV-CFTR in maxillary sinus," Lancet, 351:1702-1703, (1998). | | | |
| | DD | Wang, A., et al., "Comparison of adenoviral and adeno-associated viral vectors for pancreatic gene delivery in vivo," Human Gene Therapy, 15:405-413, (2004). | | | |
| | DE | Wang, G., et al., "Influence of cell polarity on retrovirus-mediated gene transfer to differentiated human airway epithelia," Journal of Virology, 72:9818-9826, (1998). | | | |
| | DF | Weisgraber, K.H., et al., "Human apolipoprotein E. Determination of the heparin binding sites of apolipoprotein E3," Journal of Biological Chemistry, 261(5):2068-2076, (1986). | | | |
| | DG | Wuppermann, F., et al., "Heparan sulfate-like glycosaminoglycan is a cellular receptor for Chlamydia pneumoniae," Journal of Infectious Diseases, 184:181-187, (2001). | | | |
| | DH | Zhirnov, O.P., "Proteolytic activation of myxoviruses and a new strategy in the treatment of viral diseases," Soviet Progress in Virology, 4:9-21, (1983). | | | |
| | DI | Zopf, D. and S. Roth "Oligosaccharide anti-infective agents," Lancet, 347:1017-1021, (1996). | | | |

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